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ABSTRACT

Study of research on adult basic education (ABE) conducted at Florida State University reveals an array of concerns--psychological, sociological, institutional, procedural, administrative, developmental, organizational, curricular, etc. Research has been largely a student oriented phenomenon resulting in theses; this concern for ABE is a fairly recent phenomenon. Studies have been primarily 1) descriptive in nature; 2) oriented toward the outcomes of ABE instruction; and 3) concerned with some aspect of the educational process. Three descriptive studies were concerned with an urban student population involved in ABE and with two farm workers programs. Thirteen studies reported on some educational consequence accruing from the ABE programs; six reported grade level gain as measured by standardized tests and five reported on dropout rates and retention. Six process studies have been completed; seven are in various stages of completion. The completed studies explored a variety of areas--teacher behavior, teacher attributes, instructional materials and techniques, structural attributes of the instructional setting, and basic learning processes of adults. (EB)

TEACHER-STUDENT RELATIONSHIPS: A REPORT OF ADULT BASIC EDUCATION RESEARCH CONDUCTED at The Florida State University

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A paper prepared for The Workshop to Increase and to Improve University Teacher Training Programs in Adult Basic Education

Chicago, Illinois, March, 1969

The era in which we live is experiencing the most revolutionary re-thinking of student-teacher relationships since the introduction of the printed word by Gutenberg in the 15th century. Prior to the printing press, the teacher was the primary intermediary between the student and the subject matter to be learned. The teacher, as the disseminator of knowledge, was an essential element in the educational process. The introduction of printed materials did not displace the teacher but it did change the functions the teacher performed. Rather than being the sole disseminator of that which was to be learned, the teacher became more concerned with structuring the learning environment by the astute preparation, selection and scheduling of written materials.

The recent introduction of various technological advances have been and are as revolutionary as the printing press. Given the promised capabilities of technology, there may no longer be any reason to have a teacher as intermediary in the relationship between student and that which is to be learned. The position of teacher may be replaced by two more specialized positions -- that of the programmer, whose concern will be the design of the learning environment, and that of the proctor, whose concern will be the access, functioning and utilization of appropriate instructional media. Other functions, presently performed by the teacher, such as counseling, test grading, drill and recitation monitoring and the like will need to be structured into the educational situation by the judicious organization of other specialized positions or the programming of relevant technology. Thus the "art" of teaching might be transformed into the "technology" of materials preparation and environmental programming. Our whole educational system may be restructured as we become more conscious of, and consistent in, the application of such laboratory concepts as shaping, imitation, overlearning, and so on. In other words, we will become more cognizant of those forces that facilitate interaction between the learner and the content to be learned and those conditions that best reinforce the learning of "correct" or accepted interpretations or utilizations of content relating to the ongoing affairs of the students' life.

It isn't our purpose to present an extended treatise on the changes that might be occurring in the teacher-student-subject matter troika. It is sufficient to say that an increasing amount of thought and developmental effort have been devoted to this topic from various sources. Proponents of various positions (e.g. "systems") haven't always been as rigorous or scientifically pure in developing their approaches as they might be. Mythology has been, and is, rampant. Most of us would agree, however, that teaching is, at present, more of an art than a science, and that it is difficult to observe, quantify and communicate to others that which makes instruction "successful" or "unsuccessful". Some would say education, and especially adult education, is not a science at all, and that the guidelines we follow are combinations of practical techniques and obscure or poetic speculations. Consequently, either the practitioner has a "feel" for what he is doing, or he does not since few, if any, scientific rules or laws guide our behavior and since the "principles" we rotely recite are seldom translatable into practice.

This conference came into being largely because of this concern about the "state-of-the-art" of adult basic education. This paper is directed toward this concern. More specifically, this paper will focus on the nature of the research that has been conducted in adult basic education at one University--Florida State University. This is a challenging task, especially since faculty at FSU have been actively involved in in-service training functions and various consultative activities since the inception of Federal support for ABE. For purposes of clarification, the assigned topic "teacher-student relationships" has been broadly interpreted to encompass a concern for all those forces related to teaching and learning in adult basic education. It should be emphasized that this paper is not a review of the research conducted across the country on ABE; nor does it review the non-ABE research and theory that might have relevance to adult basic education. Its purpose is to assess the studies that have been conducted at Florida State that deal either directly or incidentally with adult basic education.

Data in Tables 1 and 2 reflect the status of this research. Two observations can be made about these data: One, the research has been a largely student oriented phenomena in that data, however generated, results in a thesis or dissertation; and, two, concern about adult basic education is a fairly recent phenomenon. One can speculate on the forces that have generated this emerging concern -- the Federal commitment to ABE in 1964; the increased awareness of a disadvantaged population that might benefit from adult education by those entering a graduate program of studies; and probably more importantly, the increased involvement of faculty in various programs

TABLE 1

NUMBER OF STUDIES CONCERNED WITH SOME ASPECT OF ADULT BASIC EDUCATION

Type of Study	In Process	Completed
Dissertation/thesis	7	7
Faculty	2	2
Other	-	2
	9	11 N=20

TABLE 2

DATE ABE STUDIES INITATED OR COMPLETED

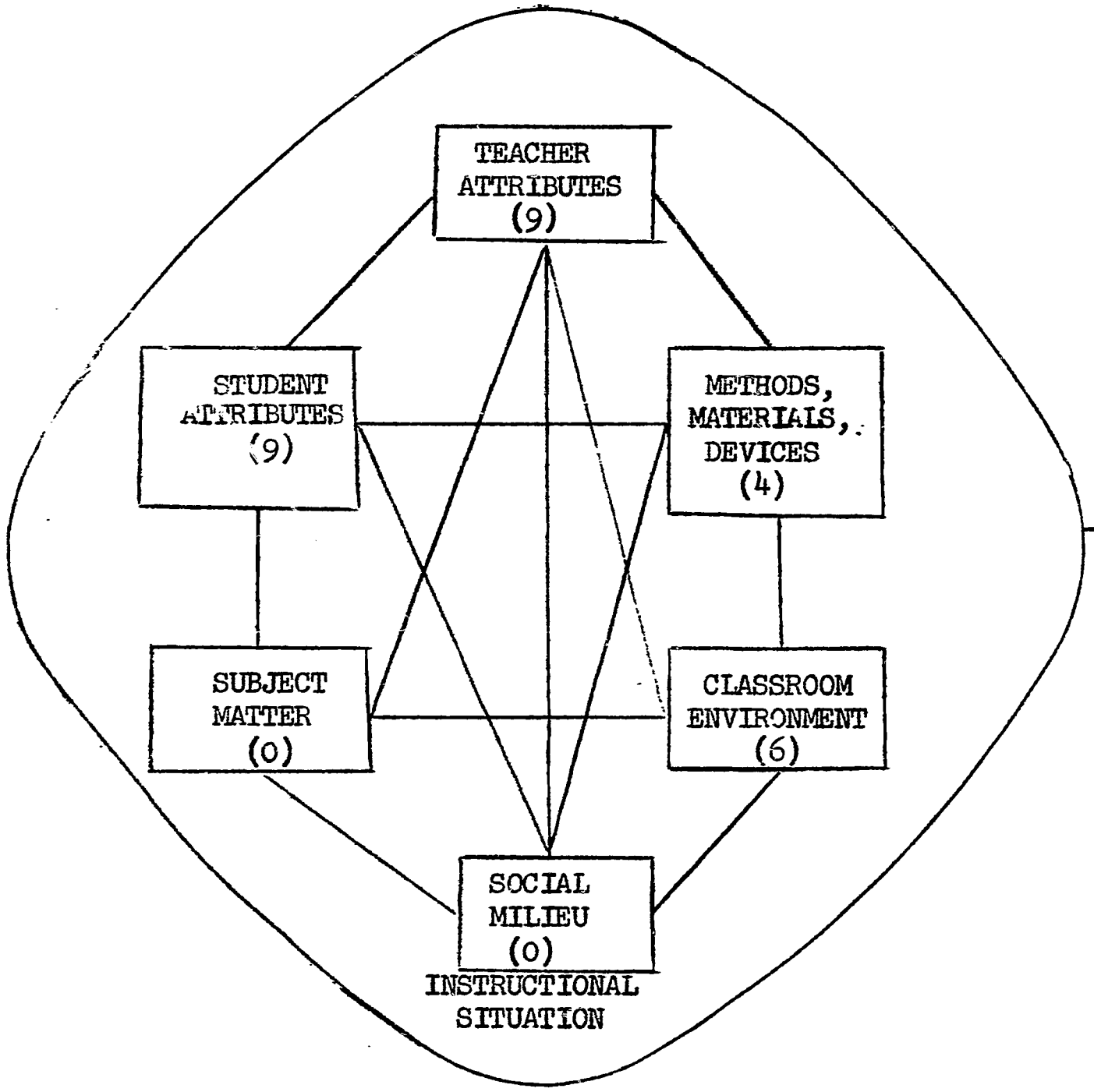
Year	Number Completed	Number Initiated
1963	1	-
1966	1	-
1967	5	-
1968	4	7
1969	-	2
	11	9 N=20

among the disadvantaged populations. Whether this involvement is leading to the identification of superficial research questions or is leading to a meaningful, imaginative exploration of the field is open to considerable debate and is not the basic task of this paper.

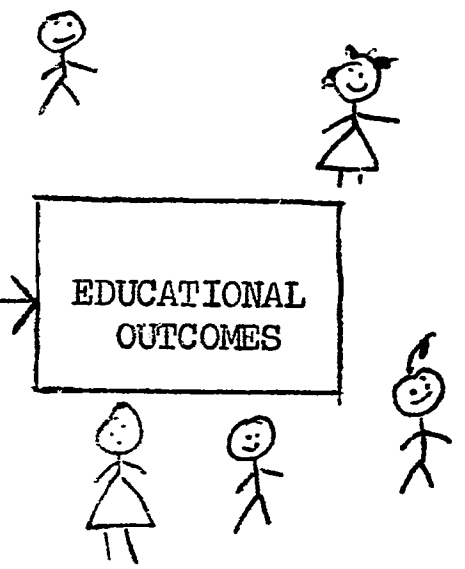
The Character of ABE Research

In exploring the limited number of research efforts conducted on ABE, this writer was impressed with the diverse array of topics that have been studied. This might, in part, reflect the nature of adult basic education in that there are psychological, sociological, institutional, procedural, administrative, developmental, organizational, curricular and other issues that are all competing, simultaneously, for the attention of the researcher, the administrator and the practitioner in the field. It would appear that adult basic education is not a discipline. It is an area of application that can utilize the competencies of specialists in many fields. It is not a unitary area of application or of curricular concern, such as is reading or math education, but is a diverse field in itself. No single adult educator -- researcher, academician or practitioner -- has the expertise to address himself to all of the facets of ABE. Current research reflects this array of concerns.

In attempting to develop some order out of the apparent chaotic state of ABE research, the schema in Figure 1 was developed. It is a tentative schema and reflects a very crude attempt to systematize observation of ABE instruction. Note that six general categories of variables were identified as existing in the instructional situation -- teacher, student, subject matter, methodology (including materials and devices), classroom environment (physical and social attributes) and social milieu (outside of classroom). The component variables within each category interact with most of the other variables in dynamic, and, at present, largely unknown ways and result in some educational product. This product, to educators,



(Unique combination of elements)



(Dropout; test performance; satisfaction; skill acquisition; social functioning)

FIGURE 1 -- ORGANIZING SCHEMA FOR STUDY OF ADULT BASIC EDUCATION INSTRUCTION

is usually operationalized as some quantitive measure such as grade level gain, satisfaction level, skill or behavioral performance, dropout or what have you. The unique interaction of these elements or variables defines or describes any given instructional situation. Change one significant element or variable and the instructional situation is changed. Consequently, few instructional situations are exactly alike. They are complicated and varied. A good adult educator, in my opinion, recognizes this. A good researcher also recognizes this, and he tries to control, insofar as is possible, the influence of extraneous variables.

Researchers usually ask relatively simple questions about instructional situations (e.g. simple to ask, but not always simple to operationalize and/or control). The reading specialist may ask "What is the relationship between the reading materials used and reading skill acquisition?" A psychologist may ask "What is the relationship between a personality attribute and some educational result such as dropout or retention?" Other specialists, of a developmental rather than an empirical sort, might concern themselves with the relationships between one instructional variable to another, such as how to utilize certain technological devices or instructional techniques for the presentation of various subject areas. In general then, the researcher concerns himself with a limited number of variables, and explores them in some more or less controlled fashion to seek answers to the questions he is raising. The practitioner, in making program decisions, is concerned with all of these variables at once. The dilemma, to this writer, is obvious. The practitioner wants answers; the researcher wants questions--that can be operationalized and researched in some controlled fashion. The practitioner is concerned with making the best possible decision within limits of time, expense and experience; the researcher is concerned with the validity and reliability of the answers empirical research can give. An issue that faces those of us who are concerned with quality ABE programs, now and in the future, is the compatibility of pressures to make judgmental, value oriented decisions versus needs to rigorously research the many unknowns in the field.

What is the nature of the research questions that have been raised? At the risk of over-simplification, but for convenience, three kinds of research or evaluative studies have been identified. These are characterized as being 1) primarily descriptive in nature; 2) primarily oriented toward the outcomes of ABE instruction; and, 3) primarily concerned with some aspect of the educational process. These are not mutually exclusive categories, but they do provide us a referent in attempting to understand and assess the research and evaluative studies that have been conducted.

Descriptive Studies These studies address themselves to the question "What is going on in ABE?" Every administrator who has attempted to gather information on such things as enrollment and expenditures has been collecting descriptive data. These data are crucial to every educational program. The administrator needs to know what is going on. He must be able to describe and justify his program. We all know the difficulties

involved in obtaining these data from teachers, county personnel and others. Likewise, we all have some idea how accurate these data are. At certain levels of decision making, and for certain kinds of decisions, a fair approximation of reality is sufficient to guide our program efforts. The researcher, however, must be concerned with accurate data if his study is to be a genuine contribution rather than a half-truth glossed over with respectable words.

Outcome Studies: These studies are directed toward a relatively simple question, but one that is central to adult basic education: "What is the result, what is the consequence of ABE?" For many traditional educators, it is heresy to ask this question. Education, like prayer and psychotherapy, is assumed to have a desirable and real consequent. Its value therefore, cannot be questioned. To question the nature and quality of the educational outcome is seen as a personal threat to the integrity of many teachers and administrators. Likewise, it is seen by many as a groundless questioning of the educational procedures that have been sanctified and hallowed by time honored experience. Our reluctance to attempt pre and post program measures of student abilities or to conduct follow-up assessments of former students also appears to be a reflection of the unquestionable consequent of the educational effort.

Unfortunately, when we address ourselves to educational outcomes, we educators seem to define the consequent only as grade level gain as measured by a standardized test, regardless of the relevance of this test to program content or its relevance to the social and economic functioning of the student in the real world. We assume a positive relationship between grade level functioning and such variables as occupation, income, level of living and the like. But, to what extent is a change in grade level related to change in these social and economic indices? More realistic criteria of success might be such variables as job placement and job retention, but it is uncomfortable for us to take this great leap into the unknown. We educators often feel we are in the business of educating, and are not directly concerned with ultimate behavior change! To comfortably incorporate such behavioral criteria into our thinking, we educators will need to see ourselves as concerned with behavior modification and not merely concerned with imparting knowledge to be learned regardless of utility.

Process Studies: These studies describe in some more or less controlled way those elements that are present or absent (or more precisely, that vary) during "education". Unfortunately, the independent variable "education" is rather ill-defined. Most of us have some capacity to describe the many elements involved in the educational process. Some of us may have even acquired considerable expertise and competence in some area of the instructional situation. But in fact, many people who have attained the status of educator are not able to identify, quantify and communicate what they do that differentiates their successes from their failures. Most would say -- if they are honest -- they stumbled on an approach that "worked", that they were comfortable with, and they stuck with it. Our methods classes usually reflect this lack of clarification of the elements and processes involved

in instructional settings. Likewise the constant demand by teachers for a gimmick, a technique or a system that will ensure instant success, reflects this lack of specificity of the nature of the variable we call education.

It should be apparent that this hasty sketch of study types is more a reflection of reality than it is reality itself. None of the studies reviewed have clearly fallen into any one of these categories, although some were more centrally concerned with either descriptive, outcome or process than were others. Table 3 summarizes a hasty categorization of the 20 studies that have been, or are being conducted. Three have a heavy emphasis on the description of various attributes of an ABE program, 13 raise questions concerning outcome and each of the 20 raise questions concerning some element(s) of the educational process. Seven of the process studies were not concerned with learning outcomes, but focused entirely on process elements. None of the outcome studies were addressed solely to outcome, but were also addressed to some aspect of "why were these results attained?" Of the 20 studies, 13 were addressed specifically toward ABE concerns whereas 7 raised questions of a more general nature that were explored in an ABE situation but could have utilized almost any other adult population.

Table 3

NUMBER OF STUDIES WITH FOCUS ON
DESCRIPTION, OUTCOME AND/OR PROCESS

Area of Concern	Number
Description	3
Outcome	13
Process	20

TABLE 4

VARIABLES INCLUDED IN STUDIES CITED

Researcher	Process Studies						Outcome Studies
	Teacher Behavior	Teacher Attributes	Class Structure	Instructional Methods	Student Attributes	Interaction	
Aker & Jahns		x			x		x
Aker, et.al.		x			x		x
Blakey	x					x	
Bradtmueller					x		x
Carpenter		x					
Davis	x	x	x				x
Dutton			x		x		
Endwright					x		x
Higgins					x		
Jones	x	x					x
King			x				x
Mauk				x			x
Newman		x			x		x
Palmer					x		
Rose	x	x				x	
Scanland				x			x
Scharles					x		x
Schroeder & Jahns	x	x				x	
Smith & Geeslin				x			x
Varnado				x			x
	5	8	3	4	9	3	13

Descriptive Studies: Three studies (1, 2, 7), one of which is presently being conducted, are largely descriptive. These studies reflect an effort to describe, in rather general terms, some aspect of the ABE program. Because of their all-encompassing nature, they tend to be less analytic than many of the other studies.

Dutton (7) was concerned with, among other things, describing an urban student population involved in ABE. The program he studied encompassed a regular non-stipend ABE program and a stipended Title V program for welfare recipients. Dutton studied 101 variables that were categorized as personal, social, leisure, employment, problems, educational and community characteristics. He found some basic differences between the populations participating in these two programs. Each of his five personal variables and his four employment variables differentiated between those enrolled in the stipend and the non-stipend programs. This is not too surprising since such characteristics as sex, age, family income, marital status, employment status and so on are among the criteria used in recruiting and screening students for these programs. The number of variables significantly associated with type of program participation are presented in Table 5. A total of 55 of the 101 variables were significant.

TABLE 5

NUMBER OF VARIABLES, BY CATEGORY, SIGNIFICANTLY ASSOCIATED WITH TYPE OF PROGRAM PARTICIPATION

(Source: Dutton)

Category of Variables	Number of Significant Variables
Personal (N=5)	5
Social (N=11)	5
Leisure (N=15)	5
Employment (N=4)	4
Personal & Family Problems (N=25)	11
Educational (N=36)	24
Community (N=5)	1

Some of the more relevant observations that can be made from Dutton's data include: a) the element of propinquity or accessibility of the class was more important to the non-stipend participants than to those who received

a stipend. Nearly 1/2 of the former compared with 1/10 of the latter lived within a distance of one mile from their class location (e.g.: money has a real motivational influence); b) stipend students had higher initial grade placement than non-stipend students (98% at a 4.0 grade level or higher compared with 56%); c) stipend students indicated a significantly greater awareness of, and concern for, personal and family problems (money, work, family, children, house), reported what might be deemed more realistic future vocational goals, and, were more likely to identify specific subject content (compared with socializing and personal ends) as the primary value of attending class; and, d) the stipend students were found to be less alienated (e.g.: feeling of some mastery or control, and some sense of involvement in life) than were the non-stipend students. A comparison of levels of alienation of the students reported in the Dutton study and those being studied by Aker and Jahns (1) are presented in Table 6.

Aker, Schroeder and Jahns (2) gave a detailed description of participants in an OEO funded farm workers program being conducted in a southern state. These data were generated as a result of a consulting relationship established with the ABE program and, in large measure, reflect the kinds of data that were gathered by the program staff prior to the consulting relationship. Again, recruitment and screening decisions affected the character of the student population, but in general, it was an older population who were functioning at a lower grade level than the Dutton population. This particular study is now being replicated by Aker and Jahns (1) in another farm workers program using more adequate test data, more researcher generated questions and closer supervision of the data collection process.

Taken by themselves, these descriptive data tell us little. Most good program administrators have data that are nearly as complete as these, and that undoubtedly give a more adequate reflection of the character of public school adult basic education. One might question what difference it makes whether these data exist or not. Probably none, unless the data are useful in making more adequate program-related decisions or if they are useful in generating and clarifying more specific questions that need to be resolved.

Outcome Studies

Thirteen studies were conducted that reported on some educational consequent that accrued from the ABE program. Of those studies completed, six reported grade level gain as measured by standardized tests and five reported on dropout rates and retention.

Grade Level Gain. Bradtmueller (4), in a report to the Florida State Department of Education in 1968, summarized the educational attainment of participants in a 1967 summer migrant ABE program. He asked, along with several other questions, 1) Do migrants gain in tested competence? and 2) What is the relative competence at the beginning and end of the program?

TABLE 6

LEVEL OF ALIENATION OF ABE STUDENTS AND TEACHERS
(Sources: Dutton; Aker and Jahns)

Level of Alienation (Dean's Scale)	% Rural Mississippi Teachers (N=25)	% Rural Mississippi Students (N=238)	% Urban Florida Students (N=251)	% Urban Florida Students	
				Stipend (N=96)	Non-Stipend (N=155)
Low (Score of 48 or less)	.44	.15	.34	.44	.28
Medium (49-57)	.36	.32	.33	.31	.34
High (58+)	.20	.53	.33	.25	.38

His data, collected under the supervision of county program personnel at the request of the State Department, indicated a .58 average grade level gain during the 14 week, 420 instructional hour program (210 of which consisted of pre-vocational education and 210 hours of basic education). Pre-test scores indicated an average grade level of 3.98 and post-test scores averaged 4.56. This is approximately a one half year educational gain in 14 weeks. This gain was not evenly distributed throughout the sub-tests of the test given. Bradtmueller reported the smallest gain was in vocabulary and the greatest gain was in reading comprehension. He reported these gains were the approximate equivalent of one-third and two-thirds, respectively, of a years growth. Arithmetic gains (computation and problem solving) averaged better than five months growth in 14 weeks.

Bradtmueller also observed that, in general, those participants with higher pre-test scores made smaller gains than those with lower pre-test scores although their relative standings were maintained. This is a bit of a surprise since we might expect education to emphasize the ability differential between students rather than leading to greater homogeneity of educational functioning. In this study, participants were educationally more alike at the termination of the program than at its inception. One may question what it is that had this effect--the students, the subject content, instructional methodology, or what. These concerns could not be adequately explored with the data Bradtmueller had available, but he did determine the association between gain and age, amount of prior formal schooling, and number of years since formal schooling was terminated. He noted that older students gained more in vocabulary and reading skills than did the younger students; that the more formal schooling a student received as a child, the less the educational gain achieved in this program; and, the longer a student had been out of school, the greater his growth in vocabulary and computation and the smaller his growth in reading and problem solving.

In the outcome study conducted by Aker, et. al. (2), a more elaborate analysis was made of grade level achievement and those factors associated with this achievement. Aker, et. al. found that the average pre-test grade level was 2.6 and post-test level was 4.9 in the stipend, OEO funded seasonal farm workers program they studied. (The number of instructional hours in this program is not known, but it was not in excess of 840 hours). Grade level gain was not equitably distributed across the student population. Similar to Bradtmueller's findings, those who tested relatively low on the pre-test made a greater gain than those who tested high, although the relative standings of individuals were maintained from pre to post test. An attempt was made to determine if any student attributes, available from program records, were associated with this gain. Only one significant association was found, post-test grade level. A comparative analysis of sex and residential characteristics as they affect grade level gain is presently being conducted. Preliminary data are presented in Table 7. These data indicate that relative gains between pre-program, mid-program and post-program test varied by both sex and residence.

Data were collected by Baker, et al. on certain instructional and program related characteristics. Unfortunately, the researchers had no way of matching a given student with a given teacher since interclass mobility of both teachers and students was quite high. Consequently, data on instructional staff were grouped so that comparative analyses could be conducted between the several educational centers being operated by the program.

Of the nine educational centers (with a total average grade level gain of 2.3), the three highest gain centers averaged a student gain of 3.4 grade levels (range of 3.2 to 3.7) and the three lowest gain centers averaged 1.8 grade levels gain (range of 1.3 to 1.9). These data are shown in Table 8. From analyses of the data, it was found that low gain centers had more male than female teachers (about 3 to 1), whereas high gain centers had approximately equal numbers of male and female teachers. High gain center teachers were more likely to report no previous adult instructional experience (3 to 1) whereas low gain center teachers were more likely to report previous adult teaching experience (again 3 to 1). Teachers in high gain centers were less likely to report a professional commitment to adult education than were teachers from low gain centers (78% versus 91%). These data are somewhat reminiscent of some of the findings of the Greenleigh study (9) conducted three years ago.

Teachers were asked to identify, from a prepared list, what they considered to be the three largest problems and the three smallest problems they faced. These data are summarized in Table 9. A majority (67%) of the high gain center teachers expressed concern with individualization of instruction compared with the 22% of the low gain center teachers who expressed this concern. Conversely, low gain teachers expressed greater concern with pacing their classes for slow and fast learners than did high gain center teachers (64% versus 33%). Low gain teachers identified preparation of teacher-made materials and application of instruction to the everyday life of the student as being of little concern whereas their greatest concerns were pacing the class and selecting suitable commercially available materials. In looking at the patterns of responses to the problems identified, one gets the impression that teachers in low gain centers, as a group, were less concerned about the individual student and with the application of educational subject matter to non-school related concerns. They were more concerned with pacing the class as a whole and with the selection of suitable materials rather than the preparation of locally relevant materials. On the other hand, teachers from high gain centers appear more concerned with individualization of instruction and less concerned with pacing the class. These data, although speculative, suggest that the instructional orientations of teaching staff might be a fruitful area for future research and study.

TABLE 7

PRE AND POST TEST SCORES AND GRADE LEVEL GAIN
(Source: Umpublished data being analyzed)
TENTATIVE

Variable	Pre-test Score	Post-test Score	Grade Level Increase		
			1st-2nd Test	2nd-3d Test	1st-3d Test
Total (N=228)	2.6	4.9	.9	1.3	2.3
Total Rural (N=170)	2.6	5.0	.8	1.7	2.4
R Female	2.9	5.9	1.0	1.9	3.0
R Male	2.5	4.6	.6	1.5	2.1
Total City (N=59)	2.6	4.4	1.1	.6	1.7
C Female	3.3	5.3	.8	1.2	2.0
C Male	1.6	3.6	1.6	.3	2.0
Total Female (N=88)	3.1	5.7	.9	1.6	2.6
Total Male (N=141)	2.2	4.4	.9	1.3	2.2

TABLE 8

ACHIEVEMENT AND PERCENT DROPOUT BY ABE CENTERS
(Source: Aker, Schroeder and Jahns)

	Achievement (Means)				Dropout	
	Number	Pre-Test	Post-Test	Mean Gain[a]	Number Dropped	Persisted
High Centers						
A	15	3.55	7.22	3.67	25	20.0	80.0
B	17	3.05	6.27	3.22	23	13.0	87.0
C	14	2.29	5.50	3.21	24	16.7	83.3
Total	46	2.98	6.35	3.37	72	16.7	83.3
Medium Centers						
D	18	2.33	4.97	2.66	38	36.8	63.2
E	35	2.39	4.81	2.42	74	41.9	58.1
F	16	2.61	4.72	2.11	29	31.0	69.0
Total	69	2.42	4.84	2.41	141	38.3	61.7
Low Centers						
G	30	2.26	4.17	1.91	40	17.5	82.5
H	15	2.34	4.20	1.86	31	31.0	69.0
I	15	2.94	4.27	1.33	32	37.5	62.5
Total	60	2.45	4.21	1.75	103	28.2	71.8

[a] "t" test revealed significance $\leq .01$.

TABLE 9

SUCCESS OF CENTERS BY NATURE AND INTENSITY OF PROBLEMS PERCEIVED BY ABE TEACHERS[a]

(Source: Aker, Schroeder and Jahns)

Center Achievement	Density of Problem	Number	Nature of Problems										
			B	C	D	E	F	G	H	I	J	K	L
High	Largest	9	66.7	33.3	22.2	33.3	0.0	11.1	22.2	11.1	44.4	11.1	44.4
	Smallest	9	22.2	44.4	33.3	22.2	33.3	22.2	33.3	22.2	22.2	11.1	33.3
Medium	Largest	11	27.3	54.5	27.3	0.0	27.3	18.2	9.1	27.3	36.4	18.2	36.4
	Smallest	11	9.1	27.3	18.2	27.3	27.3	27.3	27.3	9.1	27.3	27.3	36.4
Low	Largest	11	18.2	63.6	18.2	27.3	18.2	0.0	27.3	18.2	54.5	9.1	45.5
	Smallest	11	0.0	18.2	45.5	27.3	18.2	27.3	36.4	27.3	18.2	54.5	18.2
Total	Largest	31	35.5	51.6	22.6	19.4	16.1	9.7	19.4	19.4	45.2	12.9	41.9
	Smallest	31	9.7	29.0	32.3	25.8	25.8	25.8	32.3	19.4	22.6	32.3	29.0

[a]Respondents were asked to designate their three largest and three smallest problems--the percentage in each cell is based on the total number of teachers employed by each group of centers typed according to achievement level of their students.

B - Individualizing Instruction.
C - Pacing Class for Fast and Slow Learners.
D - Application to Life of Student.
E - Recruitment of Students.
F - Dropout.
G - Regularity of Attendance.
H - Determining Grade Level.
I - Measuring Student Progress.
J - Selecting Suitable Materials.
K - Preparing Materials.
L - Helping Students With Personal Problems.

Endwright (8), in another outcome study, reported on the educational achievement of prisoners involved in a voluntary, full-time program using inmate instructors. He noted that intermediate students (pre-test scores of 4.0 to 7.9), made somewhat faster gains than primary level students (pre-test scores of 0.0 to 3.9). Those at the advanced level (pre-test scores of 8.0-12.0) made the greatest gain. He reported a .6 grade level gain every 8 months for primary students; a .9 grade level gain every 8 months for intermediate students; and, a 2.6 grade level gain every 7 months for advanced students. The gain for the 166 students in this program averaged 1.5 grade levels every 7 1/2 months. He noted that white students made somewhat faster progress than non-white students. The average age of all students was reported to be 40 and their IQ averaged "near 95".

Dropout. Six studies explored dropout as an outcome variable. Smith and Geeslin (20) reported a high dropout rate (50%) in the programs they were using to test the relative advantages of traditional materials compared with a teacher kit they were developing. They reported that this high attrition was due to spring farm work and to lack of funds to continue employment of instructional staff. Aker, Schroeder and Jahns (2) reported a dropout rate of 28% in their study of a southern farm workers program. Age of student, and the expectations he held regarding the program were reported to be associated with dropout. Age was negatively associated with dropout. Those students who had greater initial expectations that the program would be helpful in resolving various problems were more likely to drop out.

Scharles 18) studied dropout, but did not report the rate he found in the adult evening high school program he studied. He was primarily concerned with the personality attributes that dropouts exhibited compared with non-dropouts. He found a sex difference between dropouts and non-dropouts. Compared with male dropouts, male non-dropouts, had a higher need for affiliation but a lower need for autonomy. Female non-dropouts, compared with female dropouts, had a higher need for abasement but a lower need for achievement.

Jones (11), among other things, considered the question of persistence in adult vocational classes. While he did not report on dropout rates, he did report that teacher attributes, such as mental ability and educational level, were not factors in student retention. He also found that the teachers knowledge of subject matter was negatively correlated with persistence in the program.

The civil defense study conducted by Davis (6), while not directly related to ABE, has relevance for us. This study, conducted in 1963, reported 29 adult education dropout studies between 1928 and 1962. Eighteen of these were concerned with public schools. He found that, of the enrollees in civil defense adult education, up to 36% never came back to a second class meeting and that dropout rates ranged from 0% to 60%. He also reported that administrative decisions, such as the time of day the class was held, length of sessions, frequency per week the sessions were held,

or previous teaching experience of the teacher and size of class had no significant effect on dropout. He did find that in those classes where the instructor talked to students as an equal, as reported by the students, the dropout was significantly less. These data suggest some variables that might fruitfully be pursued in ABE research.

In summary, the outcome studies that have been conducted--at least those that identify a variable that can be categorized as outcome--have been diverse and rather numerous. The pattern that emerges is rather sketchy and certainly doesn't warrant any widespread generalization. A major point that must be raised--a criticism--is that no outcome studies have been conducted that explore adjustment to the world outside of the classroom. No efforts have been directed toward exploring such social and economic benefits that accrue a) from participation in ABE, b) from differential grade level gain in ABE, or c) from differences in the subject content, such as literacy or prevocational instruction, to which the student is exposed. This is a major omission from our research efforts. At this time, we can do no more than assume that persistence in class attendance, grade level gain, satisfaction, and other measures of outcome are directly related to the students satisfactory adjustment in the real world. Consequently, I would propose that we are guilty of a major error of omission --that of failing to establish the relationship between classroom performance and societal performance. Maybe this concern needs to be explored before we put too much emphasis on how to best achieve maximum classroom performance on the part of the student.

Process Studies

The process studies that have been conducted at FSU have been partially reported in the above paragraphs. Six of the process studies have been completed; seven are in various stages of completion. Those that have been completed have explored a variety of areas.

For example, certain aspects of teacher behavior have been studied in the classroom situation. Davis (6) obtained reactions of students to selected aspects of teacher behavior in civil defense classes. He found that acceptance, as reported by the student, during the first class session had a significant influence on retention in the program.

Two studies have been completed that explored some aspect of teacher attributes. Jones (11) reported that the teacher's objective knowledge of subject matter was positively correlated with gain in test scores but was negatively correlated with persistence or retention in the program. He also found that the mental abilities of teachers did not affect either the students satisfaction with his class, his persistence in attendance or his cognitive or psychomotor gain. Aker, et al. (2) found that such teacher attributes as sex, prior adult teaching experience, commitment to adult education as a career and the perception of certain program related

problems were related to students educational gains and persistence in attendance. Davis (6) also indicated that previous teaching experience of the teacher had no effect on dropout. Newman (14), in a study of value congruency of teachers and students is presently exploring the relationship of this congruency to grade level gain.

Two studies explored various structural attributes of the instructional setting. Davis (6) reported that time of day, length of classes, frequency of sessions and size of class had no effect on dropout. King, (12), in a comparative study of a conference type class organization (akin to an unstructured group) as compared to a panel type class (akin to a chain structured group) found that the structure of the classroom situation affected a specific task the group was assigned to perform and that ones location in the group structure affected satisfaction regarding this task.

Several studies have been conducted comparing instructional materials and techniques. Smith and Geeslin (20) tested the effectiveness of a kit of reading materials they had prepared which covered concerns in the day-to-day life of the disadvantaged population. This kit was compared with "traditional" educational materials. They reported some evidence in favor of the kit. Likewise, Varnado (21), in comparing adult centered materials and traditional materials in teacher dominated versus student centered groups, found a significant difference between traditional materials in a teacher centered situation and adult materials used in a student centered way. Unfortunately, neither of these studies were very precise in their descriptions of the experimental and control situations which they established for their studies. Scanland (17), in a study now in progress, is exploring CAI instruction compared with discussion as a force in affecting attitudes of culturally disadvantaged parents toward childhood education. Mauk (13) is presently conducting a study concerned with reward structure and feedback on grade level advancement.

Three studies were found that were concerned with some of the more basic learning processes of adults. Carpenter (5) studied several variables related to information processing among adults. This study was conducted using as subjects the participants in the 1967 Southeast Regional ABE Teacher Trainer Institute conducted at Florida State University. He found that, in general, performance declined with age. He also noted an incongruency between age, ease of task and performance. In initial trials, older subjects did not do as well as younger subjects even though the task was relatively less difficult than in later trials. In the later trials, older subjects performed little, if any, below the younger subjects. He speculated that higher initial anxiety interfered with the performance of older subjects more than it did with younger subjects. He also reported a sex difference in performance, with males outscoring females in all tests.

Palmer (15) is presently conducting a study which is exploring the decoding of various unfamiliar words of several types by adults functioning at different reading levels. This study is concerned with a single physical reaction, eye movement, as the adult attacks and analyzes what he sees. Higgins (10) is conducting a study on the interpretation of proletarian novels--daily comic strips to us ordinary people--by undereducated adults in a Florida penitentiary. Her primary concern is how comprehension develops as given materials are read by the student.

Several studies are being conducted that focus upon interaction in the educational setting. Rose (16) and Schroeder and Jahns (19) are analyzing interaction data collected during the 1968 Southeast Regional ABE Teacher Trainer Institute conducted at Florida State University. Rose is exploring a personality attribute of participating teachers, sociability, and its relationship to interaction in the educational setting. Schroeder and Jahns are analyzing sociometric and satisfaction data, personality and cognitive gain as they relate to interaction. This latter study is proving to be very exciting since it is concerned with the ongoing dynamics of teacher-student interaction and how this affects instructional outcomes.

Blakey (3), following in the pattern set by Rose, Schroeder and Jahns, is attempting to explore interaction patterns in ABE classrooms and is concerned with the impact of teacher expectations on student success. He is concerned with how the teacher communicates, if at all, the expectancy of success or the expectancy of failure to the student.

Summary Impressions

After reviewing the kinds of research that have been conducted, it would appear that the most exciting questions are just now being raised--those that are concerned, not with program description or program outcomes, but with those variables that affect these outcomes. Unfortunately, these studies do not generate the global, program-wide answers practitioners need in making day-to-day decisions. The studies do, however, appear to be tackling some of the basic concerns that underlie ABE instruction and are doing this with more rigor and precision than has been the case in the past. It is self evident that this is only a start. One wonders, after reviewing the research that has been conducted, where the guidelines and principles have come that the practitioner--administrator and teacher alike--uses. Certainly not from previous adult education research.

One also wonders whether or not the academician should be involved in making the value oriented decisions and global generalizations, such as are required to conduct in-service education programs, if there is such a void in our empirical knowledge from which to make these generalizations. Maybe the limited number of academicians should be more concerned with ferreting out and exploring more basic questions--not descriptive questions or outcome questions--but questions related to why certain results were attained. In referring back to Figure 1, we can see many major omissions in our research efforts that must be rectified.

Then too, how much confidence can we have in the research findings that have been uncovered? It isn't likely that one study, conducted on the personality attributes of adult students, for example, can be generalized with a great deal of confidence. Neither can we place much confidence in the value of certain instructional "systems" over others with the data we have in hand. We need to exercise greater rigor and control in our studies, and need to conduct these "better" studies under diverse situations before we can get a clearer perspective of that which makes a difference in our instructional programs. It would appear that our concern should be with how this best can be done and how to arrange the working relationships between application-oriented educational agencies and research and/or developmental oriented academicians. Within the limitations imposed by time, money, energy and other commitments, how can we establish a division of labor so that effective, meaningful research can be conducted and pressing practical concerns be responded to?

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